Minutes: NMEG meeting **Date:** Wednesday June 1st and Thursday June 2nd, 2022 **Time:** 09:00 – 16:00 both days **Place:** Fingrid's offices in Helsinki June 20th, 2022	**NMEG** Nordic Market Expert Group

Present: Jan (SE), Svenska kraftnät
                        Jon-Egil, Statnett (Convenor)
                        Miika, Fingrid
                        Ove, Edisys (Secretary)
                        Tage, Energinet
                        Teemu, Fingrid

To (NMEG):   Anne Stine, Elhub
                        Christian, Energinet
                        Jan (DK), Energinet
                        Jan (SE), Svenska kraftnät
                        Jon-Egil, Statnett (Convenor)
                        Miika, Fingrid
                        Ove, Edisys (Secretary)
                        Tage, Energinet
                        Teemu, Fingrid

CC: Audun, Elhub
                        Bent Atle, Statnett (NBM)
                        Fedder, Energinet
                        Fredrik, Fingrid
                        Hans Erik, Elhub

To (Invited guests): Antti, eSett, FI
                        Søren, Nordic RSC
                        Tommy, eSett, FI
                        Tuomas L, eSett, FI
                        Tuomas P, eSett, FI

Appendix A: NBM mFRR Energy Activation Market
Appendix B: MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms
Appendix C: Possible new Asset Types used in Denmark
Appendix D: Bidding Zone vs Scheduling Area
Appendix E: Nordic RSC and TSO data exchange regarding Long-term Capacity Calculation
                        process
Appendix F: Overview of Nordic memberships in international standardisation bodies
Appendix G: Overview of the usage of xml-schemas in the Nordic countries
Attachment: None

1   Approval of agenda

The agenda was approved with the following additions:

- Nordic RSC and TSO data exchange regarding Long-term Capacity Calculation process, see item 4.2.
- CIM bid submission document for the NBM mFRR Energy Activation Market, see item 6.1
- What of the Danish extension to CIM remains, i.e. are any MRs missing?, see item 14.2
- Is a plan the average over the period, or an "instant" value?, see item 18.1 under AOB.

2   Approval of previous meeting minutes

The previous meeting minutes were approved after correction of a spelling error found by Jan (SE).

Action:

- Ove will add the minutes to www.ediel.org.

3   Status from NEX (Nordic ECP/EDX Group)

Background: NIT has taken over the responsibility for NEX (Nordic ECP/EDX Group), former "ECP/EDX Centre of Excellence". However, the group is still below NMEG in the "formal hierarchy". NMEG will be kept informed of progress in the group.

References (links):

What to decide, discuss or inform: Status from NEX.

Miika reported:

- Miika has dropped out of the NEX group. He will be replaced by Matti Harju who will take over the publication of NEX items at www.ediel.org.

To be continued.

4   NMEG-NORCAP Project

Background: NORCAP is a project run by Nordic RSC that needs a set of new CIM based documents, such as the CRAC document and the SIPS document.

References (links):   None.

What to decide, discuss or inform: Awaiting input from NORCAP.

The task of updating NORCAP documents was ended, since nothing has happened for a long time.

4.1   CNTC IG

Fedder asks if NMEG can and will help the NORCAP project to create an implementation guide for the CNTC (Coordinated Net Transfer Capacity) process, including an information model that is consistent with the ESMP?

There are no news regarding this item, hence the item is postponed.

4.2   Nordic RSC and TSO data exchange regarding Long-term Capacity Calculation process

Jesse from Nordic RSC has asked NMEG to see if we can help finding and get approval of a new attribute in CIM EG er eventually WG16. See mail exchange between Jesse and Ove in **Appendix E.**

The Nordic RSC has started defining the capacity calculation processes related to the long-term (Y-1 and M-1). These long-term CC processes will be based on CGMs consisting of Peak and Valley scenarios (as per the CGMM). In these discussions we have also investigated the additional CC data exchange to facilitate the FB calculation process.

Within our Day-ahead CCC processes, we have utilized the following CIM documents to facilitate the needed additional data exchange. Similarly, in the LT CC processes we are expecting to continue using the same documents with further adjustments to the contents.

1. Capacity_MarketDocument (used to exchange allocation constraints)
2. Schedule_MarketDocument (used to exchange already allocated capacities)
3. *(AreaConfiguration_MarketDocument (used to exchange BZ definitions)-* probably not needed here)
4. GLSK_MarketDocument (used to exchange GLSK strategies)
5. CRAC_MarketDocument (used to exchange monitored elements, critical network elements and their constraints)

What we have now acknowledged is that these documents, in their current state, do not leave room within the same document to define data associated to these peak and valley scenarios (as it seems that this is quite a new concept to consider). Current proposal from

<!-- Min net positions for a Bidding Zone and virtual Bidding Zone -->
<ns:TimeSeries>
| <ns:mRID>23ad6b0e-60f4-8af4-6e6d-6cd53e58ca2f</ns:mRID>
<!-- A60 identifies that it is a minimum value -->
| <ns:businessType>A60</ns:businessType>
<!-- Additional attribute to distinguish whether the data corresponds to a Peak or Valley scenario for LT CC processes -->
**| <ns:scenarioType>C98 or C99</ns:scenarioType>**
…
Where:

> **C98** = Peak scenario
> **C99** = Valley scenario

NMEG discussion:

- NMEG found two alternatives:

    a) Adding the generic class AttributeInstanceComponent to the Time Series class in the relevant MarketDocuments. This means a change to ESMP (no need to change basic CIM). However, this is very generic, i.e., the content of the attribute "attribute" will be scenarioType and the content of the attribute "attributeValue" will be e.g., **C98** or **C99**.
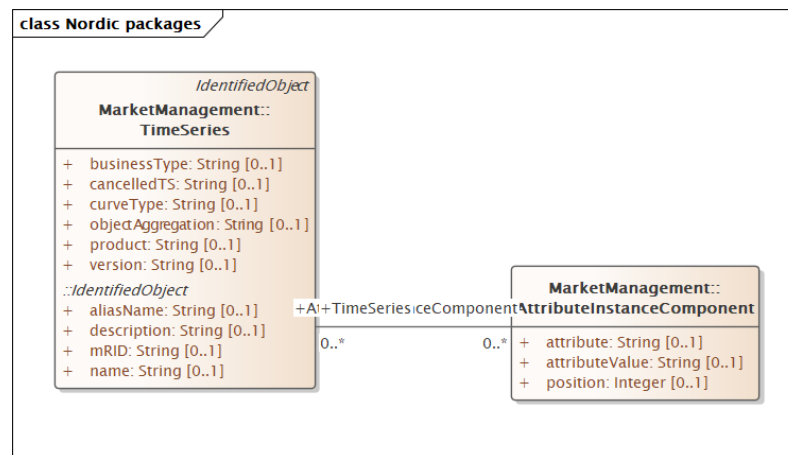
    b) Adding a "category" attribute of type Category_String to TimeSeries. The Category_String has for instance the following codes: "Peak" and "Off peak" which could

be used for "Peak scenario" and "Valley scenario" – or we could ask for a new code "Valley".

However, since the first alternative seems "too generic", we suggest going for alternative b)

Action:

- Ove will ask Nordic RSC for their opinion and if agreed, make five MRs to CIM EG: one for adding category to Time Series and four for updating the relevant MarketDocuments.
- If need, Ove will also make intermediate versions of the four MarketDocuments.

5   Status from NEAT

Background: NIT has taking over from MSC as "home" for NMEG and consequently we should have a relation to them (Nordic Enterprise Architecture Team), e.g. find out how we can cooperate.

References (links):   None.

What to decide,
discuss or inform: Status from NEAT.

The task of finding a common meeting was ended, since nothing has happened for a long time.

However, the item will be continued.

6   Support to the NBM project – prioritised item

Background: The NBM-project (Nordic Balancing Model) is going forward and there is a need for a number of new CIM based documents.

References (links):   http://nordicbalancingmodel.net/

What to decide,
discuss or inform: Status for the NBM project and possible task for NMEG.

Pending list (to remember items):

- NBM ACE OL documents and Measurement Value Market Documents will be added to the Nordic Operate BRS.
- NBM Capacity Market Documents will be added to the BRS for Determine Transfer Capacity.

Ove had as action finalised the addition of the "ACEOL_MarketDocument" (a small Nordic document used for sending every 10 seconds) and the ACE OL Limits document (ESS document) to the BRS for Operate. The BRS was reviewed and updated.

A review of the updated BRS for Nordic Trading System was postponed.

Action:

- Ove will clean up the BRS for Operate and send it on circulation for comments to NMEG for one week before publishing it.

6.1   CIM bid submission document for the NBM mFRR Energy Activation Market

Tage informed that Energinet has a request for a change in the CIM bid submission document for the NBM mFRR Energy Activation Market (ReserveBid_MarketDocument, version 7.2). We need to know if submitted bids are based on solar or wind production. See short description below:

Energinet need information about the source of the bid in order to perform adequate network calculations. Energinet base power system simulations on a network model where all generation and load are defined either individually per "plant" or as an aggregated generator/load, defined by type (wind, solar e.g.), it is necessary to know the type of generation in order to correctly modify the input to the load flow calculation. If there is no information on the bid type calculations will become less accurate since the effect of the activation cannot be simulated correctly.

So, we need some sort of generation type attribute. I don't have strong opinions on this, but one way of achieving this would be to add an "*AssetType*" attribute to the *BidTimeSeries* – with allowed values of "B16 – Solar", "B30 – Wind" and "B20 – Other".

Conclusion:

- It was agreed to make a MR for extension of the BidTimeSeries with a MktPSRType class [0..1], see Appendix A.
- Next CIM EG is September 6th and 7th and the next ESMP subgroup two to three weeks before, hence an MR should be submitted to CIM EG before summer.
- In the meantime (before approved by CIM EG) we will make a Nordic version.

Action:

- Ove will make an MR for an extended NBM mFRR Energy Activation Market (ReserveBid_MarketDocument) and sent to Jon-Egil for submission to CIM EG.
- Ove will make a Nordic version of the ReserveBid_MarketDocument (extended with a MktPSRType class) and send it on circulation for comments to NMEG for one week before publishing it.

7   Status for MRs to ebIX®

Background: NMEG has sent several Maintenance Requests (MR) to ebIX and some of these have been postponed.

References (links):   The MRs can be downloaded from Statnett's eRoom

What to decide, discuss or inform: Status for MR to ETC and if needed making new MRs.

NMEG MR	Request	ebIX® status
NMEG 2020/1 (180)	Request for: 1) "~~Regulation Type~~ Technology type" to identify the origin of the energy (thermal, wind, hydro and consumption) 2) "~~Production Category~~ Resource size", currently called Production Type (normal, minor) 3) Aggregation-criteria for "Type of metered data", currently implemented as ENTSO-E Business Types (production, consumption, losses, ….) - Changed to "Business type" and "Business type details" (The request originates from NBS)	The ebIX® BRS for measure for imbalance settlement is being finalised withing ebIX® and NMEG updated the MR at the meeting June 2nd 2022. **20220602:** • Updated based on request from EBG.

NMEG 2021/2	1) Add a "Supply Start Date" to the AP Administrative Characteristics class in Alignment of AP characteristics BRS. 2) Submit a MR to IEC/TC57/WG16 for addition of association from the MktActivityRecord class to the DateAndOrTime class. (The request originates from the Swedish data hub)	Waiting for EBG to review BRS for Alignment of Accounting Point characteristics
NMEG 2021/3	1) Add a new attribute Reporting Resolution to the AP Administrative characteristics class. 2) Add a new attribute Reporting Interval to the AP Administrative characteristics class. (The request originates from the Swedish data hub)	Waiting for EBG to review BRS for Alignment of Accounting Point characteristics

7.1 Request from ebIX®/EBG related to MR NMEG 2020/1

NMEG is asked to re-review the MR NMEG 2020/1 (to ebIX®), e.g.:

- Rename the "Regulation Type" to "Technology Type" and rename the code Z07 to something else than "Consumption" (find a name that fits a Technology Type Code List).
  Conclusion:
    o Changed to "Technology type".

- Rename the "Production Category" to "Metering Point Size" and maybe add a code for "Large" (in addition to the two existing "Normal" and "Minor").
  Conclusion:
    o Changed to "Resource size".

- Find a better solution for the Business Type Codes – It seems it should have been split into several code lists.

  Conclusion:
    o Changed to "Business type" and "Business type details".

Item closed.

8 Status for MRs to ENTSO-E

Background: NMEG has sent several Maintenance Requests (MR) to ENTSO-E during the last years and some of these (about 10 MRs) has been postponed by CIM EG.

References (links): The MRs can be downloaded from Statnett's eRoom.

What to decide, discuss or inform: Review and update of statuses in NMEG MR Overview document.

Status:

MR #		Status
NMEG 2021/193	Add an association from the TimeSeries ABIE to the Auction ABIE with a cardinality of [0..1], see green class at the Activation contextual model below.	**20220304:** - Approved at ENTSO-E ESMP meeting February 25th - will be sent to CIM EG. **20220602:** - Approved in CIM EG - Item closed

NMEG 2021/194	Add a new code "Calculated" to the Quality Type code list.	*20220304:* • Approved at ENTSO-E ESMP meeting February 25th. • During the meeting March 4th, proposals for better descriptions of the different quality type codes was submitted to Alvaro. *20220422:* • New code issued **A06** *20220602:* • Item closed
NMEG 2021/195	Add a new code "Message partially accepted" to the Reason Code Type list.	*20220304:* • Approved at ENTSO-E ESMP meeting February 25th. • It was a discussion if A07 ("Schedule partially accepted") could be changed to cover this. But it is in use, so there will be a new code. *20220422:* • New code issued **B48** *20220602:* • Item closed
NMEG 2021/196	Add new codes: **Z97** Faster than standard FAT **Z98** Faster than standard deactivation time **Z99** Slower than standard FAT	*20220304:* • Not approved at ENTSO-E ESMP meeting February 25th. • During the meeting March 4th, proposals for a more generic text then e.g. "12,5 minutes" was submitted to Alvaro. *20220422:* • New codes issued **C83** (**Z97**), **C84** (**Z97**) and **C85** (**Z97**) *20220602:* • Item closed

NMEG 2022/197	Add new codes:
	Aggregated commercial heat load (A resource using aggregated commercial heat load, including heat pumps in office buildings, for energy).
	Aggregated electric vehicle chargers (A resource using aggregated electric vehicle chargers, commercial and private, for energy).
	Aggregated private heat pumps (A resource using aggregated private heat pumps for energy).
	Reserve power (A resource using reserve power for energy).
	Cogeneration (Combined Heat and Power) (A resource using
		MRs for Asset Types and correction of Weather Process IG – prioritised item and 0,
		
		MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms.
		
		20220304:
		• Postponed since Jan (SE) was sick.
		
		20220602:
		
		• See item 10.7.
		Action:
		   o Jan (SE) will verify If the
		   o MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms still is OK.
		   o If yes, Jon-Egil will submit the MR to CIM EG.

MR #		Status
	cogeneration, combined heat and power, for energy). Commercial load (industry) (A resource using commercial load (industry), for energy).	
NMEG 2021/198	• Rename "**B16** Photovoltaic" to "**B16** Solar unspecified" • Add "**B28** Solar photovoltaic"	*20220304:* • Approved by CIM EG and updated in code list. *20220602:* • Item closed
NMEG 2022/199	Add a new element "inclusiveBidsIdentification" to the iec62325-451-7-reservebiddocument_v7_3.xsd	*20220304:* • Not approved at ENTSO-E ESMP meeting February 25th. • Jon Egil will add the description of how MARI now is using linkedBidsIdentification and involve Alexander Koistinen in that if needed. I.e. why can't linkedBidsIdentification be used? *20220602:* • Se item 9 • MR updated and will be sent to WG16
NMEG 2022/200	Rename Asset Type "**B45**" to "~~Thermal f~~ Fuel cell"	*20220321:* • Sent to Jon-Egil for forwarding to CIM EG *20220602:* • To be continued
NMEG 2022/201	Rename Asset Type **B25** to "**B25** Permanent energy storage"	*20220321:* • Sent to Jon-Egil for forwarding to CIM EG *20220602:* • To be continued
NMEG 2022/202	Add Asset Type "**B??** Temporary energy storage".	*20220321:* • Sent to Jon-Egil for forwarding to CIM EG *20220602:* • To be continued
NMEG 2022/203	Rename the title of the Process Type **A58** from "Reserve option market" to "mFRR capacity market"	*20220425:* • Sent to Jon-Egil for submission to CIM EG *20220602:* • To be continued

9   Status for MRs to WG16

Background: NMEG has drafted the first Maintenance Requests (MR) to WG16

References (links):   The MR can be downloaded from Statnett's eRoom.

What to decide,
discuss or inform: Review and update of statuses in NMEG MR Overview document.

Status:

MR #		Status

NMEG 2022/204	Add a new attribute "inclusiveBidsIdentification" to the BidTimeSeries class.	**20220425:** • Forwarded by Ove to Jan (SE) with a copy to Jon-Egil for submission to WG16. **20220602:** • MR updated with clarifying text and correction of spelling errors. • Jan (SE) will submit it to WG16

From Jan (SE):

1. WG16 does not know what "MARI" is (see Chapter 2.1), should be explained
2. Text below 3: "The same kind of update is need also in ESMP." should be changed to "The same kind of update is needed also in ESMP."
3. Add " class" to the following text below 4: "Add a new attribute inclusiveBidsIdentification to the BidTimeSeries"
4. Below 4.2.3 and 4.2.4, shouldn't it be the "ACC" described and not the ABIE? IEC 62325-351 describes the ACCs, not the ABIE's, they are included in the IEC 62325-451-x standards.

The MR was updated, and Jan (SE) will submit it to WG16.

10   Status and update of Nordic BRSs and other documents if needed

Background: NMEG is responsible for a set of BRSs that are published at www.ediel.org.

References (links):   None.

**What to decide,
discuss or inform:**   Update of BRSs and other documents if needed.

10.1   BRS for Schedules: CIM version of Outage document

Status for a request to the OPC group to agree on how to implement the CIM version of the Outage Document.

No news was reported; hence the item was postponed.

10.2   ENTSO-E: Best practice for version numbering – prioritised item

a) Status for "ENTSO-E Best practice for version numbering" as reviewed and agreed at NMEG meeting March 12th.
b) If approved by CIM EG: Review of text for the revisionNumber in the NMEG BRSs, to see if we are in line with the proposed "ENTSO-E Best practice for version numbering".

Jon-Egil showed a new proposal for update of the document. There were no comments to the updates but since this update not yet is approved by CIM EG, the item will be continued at coming meetings.

10.3   Review BRS for Schedules to see if changes are needed related to new flexibility projects – prioritised item

Ove had as action to clean up the BRS for Schedules. However, during the "clean-up" a set of questions turned up, which should be solved before publication.

Due to lack of time, the item was postponed.

10.4 Exchange of settlement information between the Nordic TSOs – prioritised item

Background: Svenska kraftnät is using an older ebIX® based xml document towards two TSOs and plan using a newer ebIX® and CIM based document towards a third TSO. The codes used for the two older xml exchanges are ebIX® codes, while the third TSO wants to use ENTSO-E codes.

An alternative is using the EAR (Energy Account Report) document, which among others is used between Energinet and TenneT and expect it to be used for the Viking-link.

References (links): None.

What to decide, discuss or inform: Assuming we (the Nordic countries) will use EAR (in a CIM version) for most of our exchanges of settlement information between the TSOs, can we agree upon some common codes and usages of that message, instead of having bilateral agreements? And since eSett also is using that message (a namespaced version of the ENTSO-E ESP Energy Account Report version 1.2) it would be relevant to get input from eSett regarding their possible updates and change to CIM.

Bilateral discussions between Denmark and Sweden have just started, perhaps that should be "part of" a more general Nordic discussion, and documentation, of how to exchange settlement information?

At the NMEG meeting in November, it was proposed to add an in_Area and an out_Area to the EAR document. Alternatively it may be an option using the ERRP Allocation Result Document.

See documents from Jan (SE):

- PowerPoint presentation "Settlement information between TSOs.pptx", which was distributed to NMEG February 28th.
- Excel sheet showing settlement related information exchanges with the following columns: "Description", "Per (MP, SO…)", Unit, Parties for Svk exchange" and "Comments Svk", also distributed to NMEG February 28th.

Action from previous meeting:

- All are asked to come up with lists over what is exchanged related to settlement information (what is left of MSCONS exchanges) between the Nordic countries, to be used as input for a possible MR for addition of in_Domain and Out_Domain to the EAR document. An alternative is to use the ERRP Allocation Result Document instead.

From discussion:

- Jon-Egil reported that Norway is using MSCONS for grid settlement.
- Jan (SE) stressed that we should go through wat is exchanged today, including such as documenting what is behind the Serial ID used in many exchanges today.

Action:

- Jan (SE), Jon-Egil, Miika and Tage are asked to fill in the Excel sheet from Jan (SE) with today's exchanges and the content (information) behind it.
- All are asked to send the result to Ove latest by August 15th, who will merge the results.

10.5 MRs for Asset Types and correction of Weather Process IG – prioritised item

Continued action:
- Jan (DK) will investigate how **D03**, **D15**, **D17** and **D18** are used and come up with proposals for MRs see Appendix C, Possible new Asset Types used in Denmark.

Since Jan (DK) was unable to participate, the item was Postponed.

10.6 Update of Weather prognosis IG - from Jan (SE)

We intend to review and finalise the MRs for update of the Weather prognosis IG.

The item was handled in MR NMEG 2021/198 – item closed.

10.7 Swedish Asset Type codes for mFRR bids

See "Appendix B, MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms".

The MR was reviewed and found OK. However, Jan (SE) will as homework verify that all codes still are valid.

Action:
- Jan (SE) will verify If the MR still is OK.
- If yes, Jon-Egil will submit the MR to CIM EG.

10.8 Review of NMEG code list

Ove had as action from previous NMEG meeting asked Bent Atle for a definition of the Document Type codes "**Z41** Production smoothing (applicable only in Norway)" and "**Z42** Netted need" and ask if "Netted need for period-shift" is a better name for **Z42**. When definitions are found and eventually "**Z42** Netted need" is renamed to a more specific name, Ove will publish an updated Nordic Code List.

The definition of **Z41** was rephrased:

Z41	Production smoothing (applicable only in Norway)	A document to provide planned quarterly adjustments the day before operation.
Z42	Need for period-shift	A document used to request need for period-shift adjustments.

Action:
- Ove will update and publish the Nordic code list.

10.9 Usage of Reason codes in NBS BRS for TSO-MO– prioritised item

Action:
- Antti and Miika will verify if we can add **Z58** (Scheduled activation) and **Z59** (Direct activation) to the NBS BRS for TSO-MO without problems (and publish as NBS BRS for TSO-MO **v2r6A**.

The item was postponed.

See background information in Appendix D, Bidding Zone vs Scheduling Area.

A text was added to a new chapter "4.6 Bidding Zone vs Scheduling Area "in the Ediel Common XML rules and recommendations.

Item closed.

Continued action:
- Ove will go through the BRSs and other documents and change Market Balance Area to Bidding Zone or Scheduling Area. If uncertain, Ove will make a note for discussion at a later NMEG meeting. This is not a time critical action.

11   Status for Swedish Flexibility project

Background:　　Sweden has two ongoing "Flexibility projects" that now want to use CIM based messages for the exchanges to/from the flexibility platforms. Among others one called Stockholm flex where Vattenfall is candidate for making CIM documents for the project(s).

To keep document exchanges as harmonised as possible in the Nordic countries, NMEG has offered them NMEGs help in making the needed CIM based xml schemas.

References (links):　　None.

**What to decide,
discuss or inform:**　　Status report from Jan (SE).

Jan (SE) presented the status in the project:
- The project ended in March, but a next phase is expected.
- However, Jan (SE) has got the task of making a CIM profile for the project, which among others includes:
    o Compering the project requirements with what is found in the BRS for Nordic trading system.
    o There are missing details in the current documentation from the project, such as missing associations, cardinalities and cods to be used.
- Jan (SE) will continue the work "now and then" and hope to get help from Nordic colleagues (NMEG).

To be continued.

12   CIM EG and ebIX® Area project

Background:　　The proposed project plan for an ebIX® and CIM EG Area project was approved by ebIX® Forum at the forum meeting November 17th, 2020. ebIX® also agreed to pay for a secretary in such a project.

In the autumn 2021, ebIX® decided to also invite EASEE-gas and ENTSG.

References (links):

**What to decide,
discuss or inform:**　　Status from CIM EG if they can approve a common ebIX® and CIM EG project.

The status for the project is that invitation has been sent to EFET, EASEE-gas, ENTSO-E (CIM EG), ENTSOG and EU DSO Entity to participate in the "Alignment of master data for areas" project. The EU DSO Entity is positive but have not yet found any participant(s), while ENTSOG will participate as observer.

Jon-Egil informed that he will be the CIM EG member in the project.

Action:

- Ove will inform the ebIX®/EBG that Jon-Egil will participate in the project.

13   XML schemas

Background: The NMEG set of schemas, including extended table with TSO columns, are shown in Appendix G.

When we start a project together with NBM (Nordic Balancing Model), everyone are asked to find what versions of xml-schemas are used to day in different projects and come up with proposals for new schemas and/or sets of schemas that should be published at www.ediel.org.

References (links):

What to decide, discuss or inform: Verify the list of proposals for new schemas and/or sets of schemas, from the NMEG participants, which should be published at www.ediel.org.

Ongoing task:

- All are asked to find what versions of xml-schemas are used to day in different projects and come up with proposals for new schemas and/or sets of schemas that should be added to Appendix G and be published at www.ediel.org.

- Ove will update the table based on NBM documentation received from Bent Atle (NBM/Fifty), when the NMEG BRSs are updated with NBM documents.

14   NMEG CIM-XML Subgroup

Background: At the NMEG meeting November 2019, it was agreed to establish a NMEG CIM-XML Subgroup that will make Nordic CIM based XML documents. The following tasks are prioritised (updated at NMEG meeting March 2020):

    a) Update the NMEG model with the latest ebIX® extension.
    b) Make a road map for making CIM documents for the Danish Datahub version 3.0.
    c) Continue with NBS documents:

        1. NBS ebIX® based documents.
        2. NBS documents based on older ENTSO-E schemas.
        3. NBS master data documents.

The members of NMEG CIM-XML Subgroup are Christian, Jan (DK), Jan (SE), Teemu and Ove.
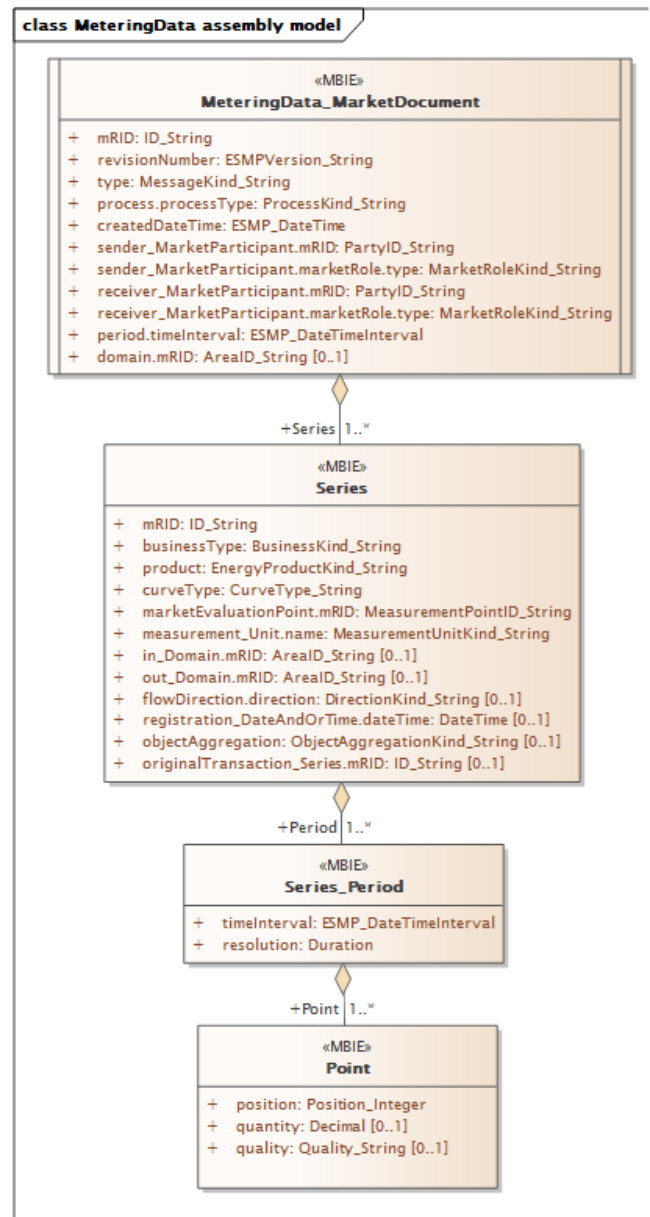
References (links):

What to decide, discuss or inform: Status.

14.1 Status for "CIM EG measurement document" and inclusion of NBS requirements

Jan (SE) informed (the item was also discussed at our NMEG meeting March 3rd) that there has been changes to the document:

- The document is renamed from MeasurementForExchangePoint to MeteringData_MarketDocument.

- The new profile shall be valid for both kind of Metering Points (Accounting and Exchange Point), therefore in- and out-Domain at timeseries level were made optional again.

- The item is on the next CIM EG agenda and Jon-Egil thinks that it probably will be approved soon.

class MeteringData assembly model

«MBIE»
MeteringData_MarketDocument

+ mRID: ID_String
+ revisionNumber: ESMPVersion_String
+ type: MessageKind_String
+ process.processType: ProcessKind_String
+ createdDateTime: ESMP_DateTime
+ sender_MarketParticipant.mRID: PartyID_String
+ sender_MarketParticipant.marketRole.type: MarketRoleKind_String
+ receiver_MarketParticipant.mRID: PartyID_String
+ receiver_MarketParticipant.marketRole.type: MarketRoleKind_String
+ period.timeInterval: ESMP_DateTimeInterval
+ domain.mRID: AreaID_String [0..1]

+Series 1..*

«MBIE»
Series

+ mRID: ID_String
+ businessType: BusinessKind_String
+ product: EnergyProductKind_String
+ curveType: CurveType_String
+ marketEvaluationPoint.mRID: MeasurementPointID_String
+ measurement_Unit.name: MeasurementUnitKind_String
+ in_Domain.mRID: AreaID_String [0..1]
+ out_Domain.mRID: AreaID_String [0..1]
+ flowDirection.direction: DirectionKind_String [0..1]
+ registration_DateAndOrTime.dateTime: DateTime [0..1]
+ objectAggregation: ObjectAggregationKind_String [0..1]
+ originalTransaction_Series.mRID: ID_String [0..1]

+Period 1..*

«MBIE»
Series_Period

+ timeInterval: ESMP_DateTimeInterval
+ resolution: Duration

+Point 1..*

«MBIE»
Point

+ position: Position_Integer
+ quantity: Decimal [0..1]
+ quality: Quality_String [0..1]

14.2 What of the Danish extension to CIM remains, i.e. are any MRs missing?

From Jan (SE):

At the WG16 meeting May 5th, Becky asked whether we could finish work on edition 3 of 62325-301 this year. Kees pointed out; It should be decided if there are enough additions for a "cluster" of what is needed in the conceived edition 3 of 62325-301, i.e. that what we want to exchange is included.

From the Nordic perspective, we can (soon) investigate whether what we need (in Denmark) is included – and what is missing for the defined messages to be exchanged. The changes around MarketEvaluationPoint are soon (May 6th or a few days later) sent from Alvaro within ENTSO-E to Becky Iverson (Model Manager).

The changes around MktActivityRecord will be discussed one more time before they are addressed in WG16. There, Alvaro wanted to get examples of when MktActivityRecord and MarketDocument are associated with each other (Ove has received emails about it).

Then the question is: what remains in the various message exchanges for the Danish needs that remain to also be brought into CIM? And which are not pure "Danish" extensions of CIM, but which are also available in ebIX®. We will also do this within ebIX®, but it will be more concrete if we look at it based on what has been done in Denmark.

Conclusion:

a) We review the blue and red classes and associations in the ESDMPACC class diagram to verify that they are included in one or more Danish messages and that there are no MRs to CIM for them.
b) Ove will make a first draft as an ETC job.

Action:

- Ove will make a Doodle for a NMEG CIM-XML subgroup meeting in the second half of August.

To be followed up.

15 Review of documents from CIM EG subgroups and IEC groups

Background: At the NMEG meeting August 2020 it was agreed that NMEG needs to be more proactive regarding commenting on new ENTSO-E and IEC documents. Hence it is added a fixed item on the NMEG agenda for review of documents from CIM EG subgroups and IEC groups that is of interest for the Nordic market.

References (links):

**What to decide,
discuss or inform:** Review of documents from CIM EG subgroups that is of interest for the Nordic market.

15.1 Prepare Nordic positions before coming CIM EG meetings

Jon-Egil presented that next CIM EG agenda.

There were no items that needed extra focus from NMEG.

16 Information (if any)

Nothing reported.

17 Next meetings and decide if next meeting will be a face-to-face meeting or GoToMeeting

NMEG scheduled face-to-face meetings[1]:

- Tuesday and Wednesday, August 23rd and 24th, Copenhagen or Erritsø
- Thursday October 6th, GoToMeeting, 10:00 to 12:00 and 13:00 to 15:00
- Tuesday and Wednesday November 22nd and 23rd, Statnett offices in Oslo

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[1] Unless otherwise explicitly stated, the face-to-face meetings start at 09:00 (CET) the first day and end 16:00 (CET) the second day.

18   AOB

18.1   Is a plan the average over the period, or an "instant" value?

From Jan (SE):

Dear NMEG,

When receiving production plans, they are sent for a period of 15 minutes. In other countries that could be a plan for 5 minutes. In the old days the value for the production plan over an hour could be seen as the average value for that period. E.g., 100 MWh/h.

But since several years the unit in the messages is typically MW, even if it still might be seen as the average value of the power for that period. Nowadays a period of 15 minutes.

How does your colleagues in the control room, or similar, look upon the production plans (or consumption plans) received to you? Are they looking at them as the "average" value for the period? Or as in "instant" value for the specified time?

If receiving a message with

> 10:00 – 10:15: 100 MW
> 10:15 – 10:30: 94 MW

It could be read as: "at 10:00 the power should be 100 MW and at 10:15 the power should be 94 MW". Or it could be read as: "during the period 10:00 – 10:15 the average should be 100 MW and during the period 10:15 – 10:30 the average should be 94 MW". Or: "at 10:07:30 the power should be (around) 100 MW and at 10:22:30 the power should be (around) 94 MW" – i.e. in the middle of the period we expect the power to have the value as specified for the whole period.

In DELFOR messages there is explicitly specified a period. But not in ENTSO-E-look-a-like messages. Then you use the StartDateTime, the resolution and the position to find the start of each "period".

Such messages could use the curve type A01: Sequential Fixed Size Blocks. For curve types, see [Introduction of different Time series possibilities.... v1.3.pdf](#).

If receiving a message with overlapping or non-overlapping break points, (curveType A04 or A05), you typically only send the breakpoints when the production (or consumption) is changed. And even if the resolution also here is 15 minutes, you don't specify all values for the whole day, just for the positions when the plan is changed.

However, this could still be seen – in the control room or by the system – as an average value for the whole period.

But should it? Would it not be more relevant to see the values as the expected production of consumption value for the "timestamp" specified in the message? And even if your colleagues in the control room would like to look at them as average values, I think it is better to see the values as "instant" values for the timestamp when sent in the messages. This because it would, to me, be strange to look at average values over a period of 5 minutes that we can have in other countries – during that small period it will not be so big difference between "10:00:00" and "10:02:30" that would be the "point" in time for the average. So, even if it was average values in the old days with hours, and some users perhaps look at the values as average values also for plans over 15 minutes, I think it is better to also see those values rather as instant values for the timestamp specified in the message. But I look at messages. Not what is seen on screens in the control room.

Reply from Jon-Egil:

> We've had that discussion before, and the conclusion then was that formally it was mean values, but it was an expectancy that it didn't vary too much, as far as I remember. So, if the result from the market was 100 MW for an hour, formally you could have 50 MW the first 30 min, then 150 MW the next 30 min.

But when using breakpoints you should follow the curve, so if the first is 50 MW and the next is 100 MW you shall follow the straight line between 50 MW and 100 MW.

Reply from Fedder:

I expect the point is that you're entitled to exchange the volume during the period with an expectancy, that you follow the average as closely as possible. And that part of the reasoning for lowering the MTU is to avoid the deviations close to the top of the hour due to ramping that is seen nowadays.

And indeed, follow the expectations outlined in the description of the CurveType 😄
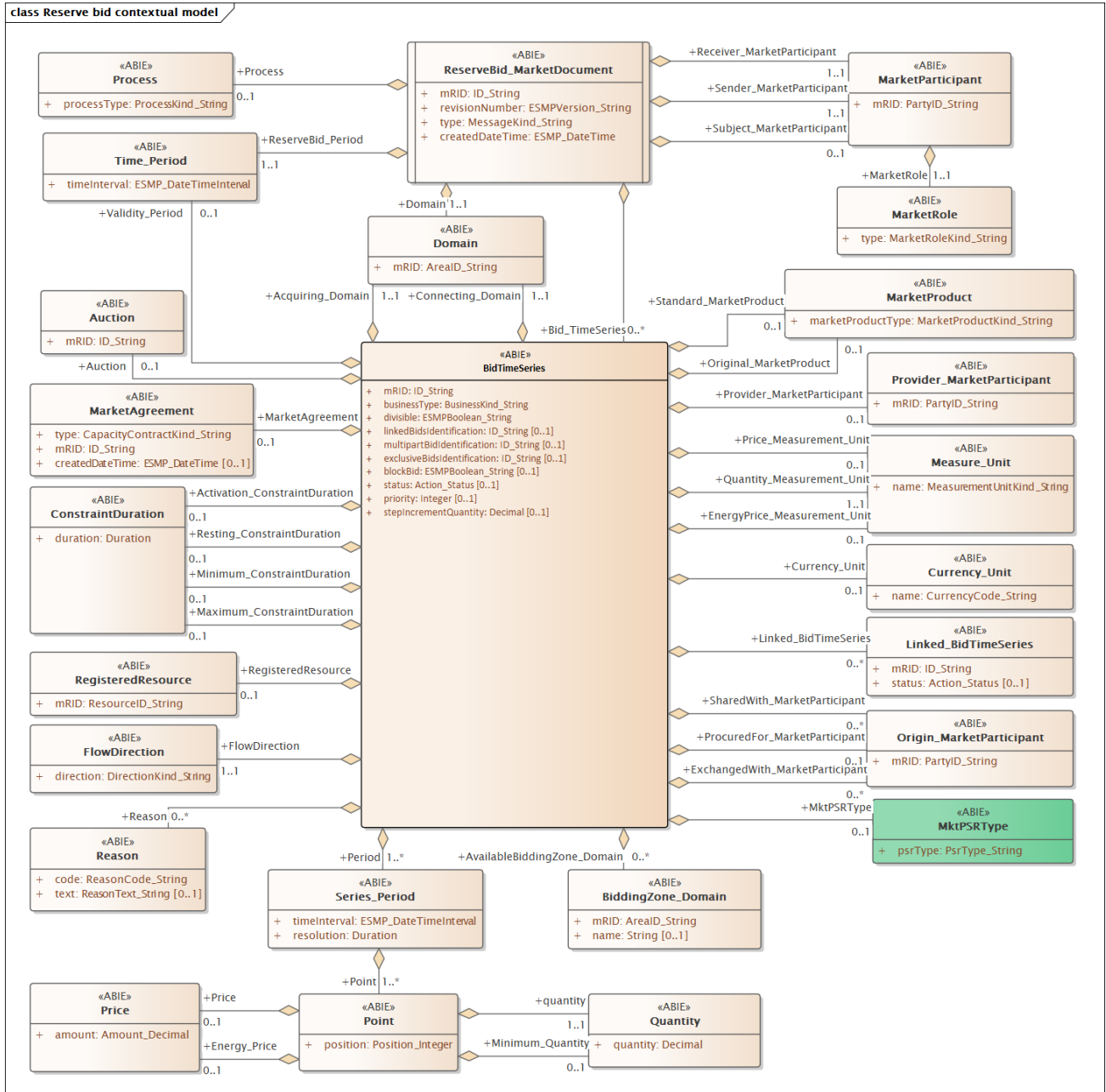
Conclusion:

- A new chapter "3.14 Period and curveType" was added to the Ediel Common XML rules and recommendations.

Action:

- Ove will send the Ediel Common XML rules and recommendations on circulation for comments to NMEG for one week before publishing it.

Item closed.

Appendix A   NBM mFRR Energy Activation Market

class Reserve bid contextual model

Appendix B   MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms

This is a proposal for resending of NMEG 2020/188.

The MR originates from different kinds of offers Svenska kraftnät will get in the mFRR bids sent from "Flexibility platforms" starting in December 2020 in Sweden. These can be separate into six different categories (in Swedish):

1. Aggregerad kommersiell värmelast (värmepumpar i kontorsbyggnader)
2. Aggregerade elfordonsladdare (främst kommersiella men även privata)
3. Aggregerade privata värmepumpar
4. Reservkraft
5. Kraftvärme
6. Kommersiell last (industri)

Date of submission:	*nn/nn/2022*
Submittor Name:	Jon-Egil Nordvik
Organisation:	Statnett on behalf of the Nordic TSOs (Energinet, Fingrid, Statnett and Svenska kraftnät)
E-mail:	jon-egil.nordvik@statnett.no

Maintenance Request title:	NMEG 2022/197
Impacted document/schema:	ENTSO-E code list
Clause/Paragraph/Figure/Table:	Asset Type code list
Description of issue:	
(Business requirement, reason for request, documentation/schema change request or impact)	

Reserve bids in the Nordic mFRR market, from "Flexibility platforms", are separated into six different categories:

1. Aggregated commercial heat load (heat pumps in office buildings)
2. Aggregated electric vehicle chargers (mainly commercial but also private)
3. Aggregated private heat pumps
4. Reserve power
5. Cogeneration (Combined Heat and Power)
6. Commercial load (industry)

Hence, new Asset Type codes are needed.

Proposed resolution:

1. Add the following Asset Type codes to the ENTSO-E code list.

ENTSO-E Code List change request

Type of code	Code[2]:	Definition:	Description:
Asset Type List		Aggregated commercial heat load	A resource using aggregated commercial heat load, including heat pumps in office buildings, for energy.
Asset Type List		Aggregated electric vehicle chargers	A resource using aggregated electric vehicle chargers, commercial and private, for energy.
Asset Type List		Aggregated private heat pumps	A resource using aggregated private heat pumps for energy.
Asset Type List		Reserve power	A resource using reserve power for energy.

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[2] The "Code" field is to be completed in the case of modifications to existing codes.

Asset Type List		Cogeneration (Combined Heat and Power)	A resource using cogeneration, combined heat and power, for energy.
Asset Type List		Commercial load (industry)	A resource using commercial load (industry), for energy.

Appendix C   Possible new Asset Types used in Denmark

The following Asset types are used in Denmark:

	Danish codes		ENTSO-E codes
D01	Steam turbine with back-pressure mode	**B39**	Thermal steam turbine with back-pressure turbine (open cycle)
D02	Gas turbine	**B38**	Thermal combined cycle gas turbine with heat recovery
D03	Combined cycle		
D04	Combustion engine gas	**B04**	Fossil Gas
D05	Steam turbine with condensation / steam	**B40**	Thermal steam turbine with condensation turbine (closed cycle)
D06	Boiler	**B46**	Thermal steam engine
D07	Stirling engine	**B44**	Thermal Stirling engine
D08	Permanent connected electrical energy storage facilities		MR will be sent for renaming **B25** to "Permanent energy storage"
D09	Temporarily connected electrical energy storage facilities		MR for new code will be sent to CIM EG "Temporary energy storage"
D10	Fuel Cells	**B45**	Thermal fuel cell
D11	Photo voltaic cells	**B28**	Solar photovoltaic
D12	Wind turbines	**B30**	Wind unspecified
D13	Hydroelectric power	**B31**	Hydro-electric unspecified
D14	Wave power	**B34**	Marine wave
D15	Mixed production		
D16	Production with electrical energy storage facilities		
D17	Power-to-X		
D18	Regenerative demand facility		
D19	Combustion engine – diesel	**B06**	Fossil Oil
D20	Combustion engine - bio	**B01**	Biomass
D99	Unknown technology	**B20**	Other unspecified

Appendix D   Bidding Zone vs Scheduling Area

From Jan (SE):

In the past, we had a "Market Balance Area", then it was easier to know that our Nordic "prisområden", "budområden", "snittområden"... It was a Market Balance Area.

But:

With "Bidding Zone" and "Scheduling Area", my spontaneous opinion is that:

a) What we in Swedish call "prisområden", "budområden", "snittområden" ", these are the areas for which you bid for the balance regulation (unless the whole country is the area), i.e. a "Bidding Zone". Or: if you send a bid for a "stasjonsgruppe", a "reglerobjekt", that object – even if it consists of several "stasjoner", can only be in a single "elområde":Bidding zone.

   From Jon-Egil: In Norway, one "reglerobjekt" can reside in multiple Bidding Zones. It is indicated in the bid which area it belongs to.

b) What we in Swedish call the "snittområde", these are the areas where the actors submit production and consumption plans (today "balansansvariga"), i.e. a "Scheduling Area" (a "planeringsområde"). Or: when you send a plan for a "stasjonsgruppe", a "reglerobjekt", that object – even if it consists of several "stasjoner", can only be in a single "snittområde": Scheduling Area.

   From Jon-Egil: In Norway, one "reglerobjekt" can reside in multiple Bidding Zones. It is indicated in the plan which area it belongs to.

c) If two actors trade energy with each other, then it does this in a "elområde", i.e. a "Bidding Zone" according to what I say under a). If they trade on the electricity exchange, well then it can be trading across "elområdesgränser".

   From Jon-Egil: Correct.

How do these areas get into the settlement? And what would happen if we have different "Bidding Zone" and "Scheduling Area"?

The definition of the Scheduling Area in the Harmonised Electricity Market Role Model (HEMRM) is:

> "An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs.

> This area consists of one or more Metering Grid Areas with common market rules for which the settlement responsible party carries out an imbalance settlement and which has the same price for imbalance."

> This is the area with a single price for the "imbalance".

> ***From Jon-Egil:*** In practice, the areas must probably be the same, the one must be a sum of the others or one must require that the "reglerobjektene" must only be inside the areas.

Then say that area "ABC" will no longer be both a Bidding Zone and a Scheduling Area, for example that we are introducing several new Scheduling Areas within a Bidding Zone. According to what I thought under c) above, two actors would still be able to trade within the same Bidding Zone without going to the power exchange. But there may be different prices for the imbalance as there are now several "planområden" within the "budområdet". What price from which area would be used for trading?

From Jon-Egil: As far as I remember, there should only be one imbalance price for one Bidding Zone.

From Bent Atle: It's another term that's being talked about here, **uncongested areas**. It will reflect the marginal price of one or more Bidding Zones.

> **Definition from** [Explanatory document (entsoe.eu)](#):
>
> uncongested area:
>
> *means the widest area, constituted by bidding zones and/or LFC areas, where the exchange of balancing energy and the netting of demands is not restricted by the cross-border capacity limits calculated in accordance with the implementation frameworks for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual and automatic activation as well as for the imbalance netting process.*

The definition of the Bidding Zone in HEMRM is:

> "The largest geographical area within which market participants are able to exchange energy without capacity allocation."

If in the future we redo our "elområden" so that the "Bidding Zone" is not (as today) the same as the "Scheduling Area", what will it be like? Is what I said under a), b) and c) still valid? Or have I thought wrong? Before we introduced "elområden" in Sweden, we had four "snittområden" that were the areas where plans were submitted (= "Scheduling Area"), although on the other hand we did not have different prices in these four different areas...

Or is it the role model that needs to be updated?

Say that after an "elområdesöversyn" (Bidding Zone review), we in the Nordic region introduce several Bidding Zones per "planeringsområde" (Scheduling Area), then there would still be the same imbalance price in these particular Bidding Zones. That shouldn't be the case, should it? Or for what type of area should the settlement take place?

I also address these issues internally.

So far, bids for aFRR are submitted to Svenska kraftnät for the whole of Sweden, i.e. Sweden is a "budområde" (Bidding Zone). But not really a Bidding Zone because there are limitations in the grid. But I guess the aFRR bids going forward will be submitted per Bidding Zone?

From Jon-Egil: In Norway, Bidding Zone and Scheduling Area are the same geographic region, so they use the same code.

Questions from Ove:

- Should we explain the difference between Bidding Zones and Scheduling Areas in a Nordic document, such as in the introduction in relevant BRSs or in the "Ediel Common XML rules and recommendations"?

- And maybe introduce a dictionary somewhere?

Appendix E   Nordic RSC and TSO data exchange regarding Long-term Capacity Calculation process

From Jesse (Nordic RSC):

After aligning internally at Nordic RSC (with Fedder Skovgaard and Søren Laursen), I understood that you'd be the correspondence to bring the below topic forward to NMEG and eventually to CIM-EG.

The Nordic RSC has started defining the capacity calculation processes related to the long-term (Y-1 and M-1). These long-term CC processes will be based on CGMs consisting of Peak and Valley scenarios (as per the CGMM). In these discussions we have also investigated the additional CC data exchange to facilitate the FB calculation process.

Within our Day-ahead CCC processes, we have utilized the following CIM documents to facilitate the needed additional data exchange. Similarly, in the LT CC processes we are expecting to continue using the same documents with further adjustments to the contents.

6. Capacity_MarketDocument (used to exchange allocation constraints)
7. Schedule_MarketDocument (used to exchange already allocated capacities)
8. AreaConfiguration_MarketDocument (used to exchange BZ definitions)
9. GLSK_MarketDocument (used to exchange GLSK strategies)
10. CRAC_MarketDocument (used to exchange monitored elements, critical network elements and their constraints)

What we have now acknowledged is that these documents, in their current state, do not leave room within the same document to define data associated to these peak and valley scenarios (as it seems that this is quite a new concept to consider). This is because the TimeSeries -element used does not contain an attribute to specify whether the TimeSeries is to be associated to either of these types. Therefore, it would be beneficial from the LT CC processes point of view if a TimeSeries within these documents would have an additional element. This element would then define whether the content in the TimeSeries relates to Peak or Valley (or "Base" in case of day-ahead/intraday) scenario.

However, before taking this any further, I would first like to understand the process around this proposal, and for example how long such process from an initiation phase until final approval would take (and what kind of chances there are that this is eventually approved). We are currently on a rather strict time schedule to have these data exchanges finalized (to be ready for implementation in NorCap System) soon, and in case this process is expected to take long, we will need to consider having another approach.

I would be glad if you'd be able to shed further light into this process either in a response to this email or for example in a short alignment call!

Response from Ove:

The time from an initiation phase until final approval will depend on the requested change, e.g.:

a) A request for a new code will normally be discussed at the next NMEG meeting and if approved, NMEG will forward the request as a MR (Maintenance Request) to CIM EG. Since both NMEG and CIM EG have meetings every four to six weeks, such a process may take between one and three months. If a faster process is needed, NMEG may issue "intermediate Nordic codes" that later on may be approved as ENTSO-E codes. This may be done within days.

b) A request for structural changes, such as addition of new attributes, new classes or changes to cardinalities will often take longer time:

1) If the change only applies to ESMP only (CIM: European Style Market Profile), the time may be like a new code request, but often there are more discussions related to these changes, which may increase the time spent.
2) If the change apples to basic CIM (62325, 61970 or 61968), the request must be approved by IEC/TC57/WG14, WG14 or WG16 and it may take one to two years.

However, in such cases NMEG has often created Nordic extended versions of the IEC documents that may be used temporarily – i.e. until finally approved by CIM EG or IEC.

You are mentioning that you need an additional element to the CIM documents you intend to use, to be used for defining whether the content in the TimeSeries relates to *Peak*, *Valley* etc.:

- Could this be implemented as new Business Type codes? If so, this could be an a) alternative.
  [Jesse] This could be one approach to consider as well. However, I am foreseeing that then we would in a way have many "duplicate" businesstypes, and the difference would just be whether it is a type associated to Peak or Valley scenario. E.g.: we are using "**A60**" businessType to define a minimum possible net position value (ENTSOE codelist description: "Minimum possible"). If we'd like to have a new code for this we'd need to do the following:

  For Peak scenario we would have **Axx** = **Peak minimum possible**
  For Valley scenario we would have **Ayy** = **Valley minimum possible**

  I am not sure if this would be the nicest way to define such different case, but I presume this would be the simplest solution?

- Could it be implemented by adding the inherited "name" attribute (from the inherited IdentifiedOject class)? If so, this could be an b) 1) alternative.

  [Jesse] As we are relating this to the ESMP documents, I don't think this would help us much 😊

We need some more information to come up with proposals for how to solve these issues.

The next NMEG meeting where this can be discussed is planned June 1st and 2nd in Helsinki.

Current Nordic RSC proposal (new attribute scenarioType in TimeSeries):

```
<!-- Min net positions for a Bidding Zone and virtual Bidding Zone -->
<ns:TimeSeries>
| <ns:mRID>23ad6b0e-60f4-8af4-6e6d-6cd53e58ca2f</ns:mRID>
<!-- A60 identifies that it is a minimum value -->
| <ns:businessType>A60</ns:businessType>
<!-- Additional attribute to distinguish whether the data corresponds to a Peak or Valley scenario
for LT CC processes -->
| <ns:scenarioType>C98 or C99</ns:scenarioType>
| <ns:product>8716867000016</ns:product>
<!-- Given that both in_Domain and out_Domain are mandatory field, then the BZ that the
constrains relate to shall be placed in both fields -->
| <ns:in_Domain.mRID codingScheme="A01">10Y1001A1001A46L</ns:in_Domain.mRID>
| <ns:out_Domain.mRID codingScheme="A01">10Y1001A1001A46L</ns:out_Domain.mRID>
| <ns:measure_Unit.name>MAW</ns:measure_Unit.name>
| <ns:Period>
| | <!-- Include Section Error! Reference source not found. -->
| </ns:Period>
</ns:TimeSeries>
```

Where:
C98 = Peak scenario and **C99** = Valley scenario

Appendix F   Overview of Nordic memberships in international standardisation bodies

Name	Member of
Anders (SE)	CGMES, ESMP
Anne Stine	NMEG, ebIX®
Bertil (SE)	EBG
Christian	NMEG, ebIX® observer (?)
Fedder	NMEG, CIM EG, IEC/WG16, CSSG, EEAT, ENTSO-E CIM tools, CIO/LIO
Eero (FI)	TF/DIA
Jan (DK)	NMEG, IEC/WG16
Jan (SE)	NMEG, HG, ebIX®, IEC/WG16+14, ESMP, TF/DIA
Jon-Egil	NMEG, CIM EG, IEC/WG16, ESMP, CCC, CIO/LIO, TPC, TF/DIA
Knud (DK)	TF/DIA
Martin (SE)	CCC
Miika	NMEG, CIM EG
Moustafa (SE)	CGMES
Oscar	CIO/LIO, ebIX®, CIM EG
Ove	NMEG, HG, ebIX®, IEC/WG16
Svein (NO)	IEC/WG14+13, CGMES
Tage	NMEG
Teemu	NMEG, CIM EG, ebIX®, CIO/LIO

Abbreviations:

CCC	Coordinated Capacity Calculation (project under CIM EG)
CGMES	Common Grid Model Exchange Standard (subgroup under CIM EG)
CIO/LIO	Central Issuing Office / Local Issuing Office
CSSG	Communication Standards (subgroup under CIM EG)
Dc	ENTSO-E Digital committee
TF/DIA	Task force Data Interoperability & Access
EBG	ebIX® Business Group
EEAT	ENTSO-E Enterprise Architecture Team (subgroup under Dc)
ESMP	European Style Market Profile (subgroup under CIM EG)
ETC	ebIX® Technical Committee
HG	ebIX®, EFET and ENTSO-E Harmonisation Group
MC	ENTSO-E Market Committee
MIT	Market Integration and Transparency (subgroup under MC)
NEX	Nordic ECP/EDX Group
TPC	Transparency Platform Coordinators (subgroup under MIT)

Appendix G Overview of the usage of xml-schemas in the Nordic countries

#	XML schema	BRS	Version used by					
			NBS	NMA	Energinet	Fingrid	Statnett	Svk
1.	NEG ECAN publication document	NBS BRS for TSO/MO	1.0					1.0, 7.0
2.	NEG ERRP Reserve Allocation Result Document	a) NBS BRS for TSO/MO b) BRS for Trade	1.0					1.0
3.	NEG Area Specification Document	a) NBS BRS for Master Data b) BRS for Trade	1.0[3]	2.0 (CIM)				
4.	NEG Bilateral Trade Structure Document	NBS BRS for Master Data	1.0					
5.	NEG Party Master Data Document	NBS BRS for Master Data	1.0					
6.	NEG Resource Object Master Data Document	NBS BRS for Master Data	1.1					
7.	ENTSO-E Acknowledgement Document	NEG Common XML rules and …	6.0					7.0 (not complete)
8.	ENTSO-E ERRP Planned Resource Schedule Document	NBS BRS for TSO/MO	5.0					
9.	NEG ERRP Planned Resource Schedule Document	BRS for Schedules						
10.	ENTSO-E ERRP Resource Schedule Confirmation Report	BRS for Schedules	No NEG version					
11.	ENTSO-E ESS Anomaly Report	BRS for Schedules	No NEG version					
12.	ENTSO-E Outage document	BRS for Schedules	No NEG version					
13.	NEG ESP Energy Account Report Document	NBS BRS	1.0					
14.	ENTSO-E ESS Confirmation Report	NBS BRS	4.1					5.0
15.	ENTSO-E ESS Schedule Document	a) NBS BRS b) NBS BRS for TSO/MO	4.1					5.0
16.	ebIX® Aggregated Data per MGA for Settlement for Settlement Responsible	NBS BRS	2013pA					
17.	ebIX® Aggregated Data per Neighbouring Grid for Settlement for Settlement Responsible	NBS BRS	2013pA					
18.	ebIX® NEG Confirmation of Aggregated Data per Neighbouring Grid for ISR	NBS BRS	2013pA					
19.	ebIX® Validated Data for Settlement for Aggregator	NBS BRS	2013pA					
20.	NEG ECAN Allocation Result Document	BRS for Trade						
21.	NEG Currency Exchange Rate Document	BRS for Trade						
22.	NEG Auction Specification	BRS for Trade						
23.	NEG Spot Market Bid Document	BRS for Trade						
24.	ENTSO-E ERRP Reserve Bid Document	BRS for Trade						1.0
25.	ENTSO-E ERRP Activation Document	BRS for Operate						5.0 (not complete)

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[3] The NBS version 1.0 is using dateTimeType for Validity Start/End (error correction), while the MO version 1.0 is using dateType. dateTimeType will be used from version 2.0.

26.	Capacity Market Document	????						7.1, 8.0